

# Datasheet of Boom Barrier Mechanism

## Model No.: EF-BBM21B

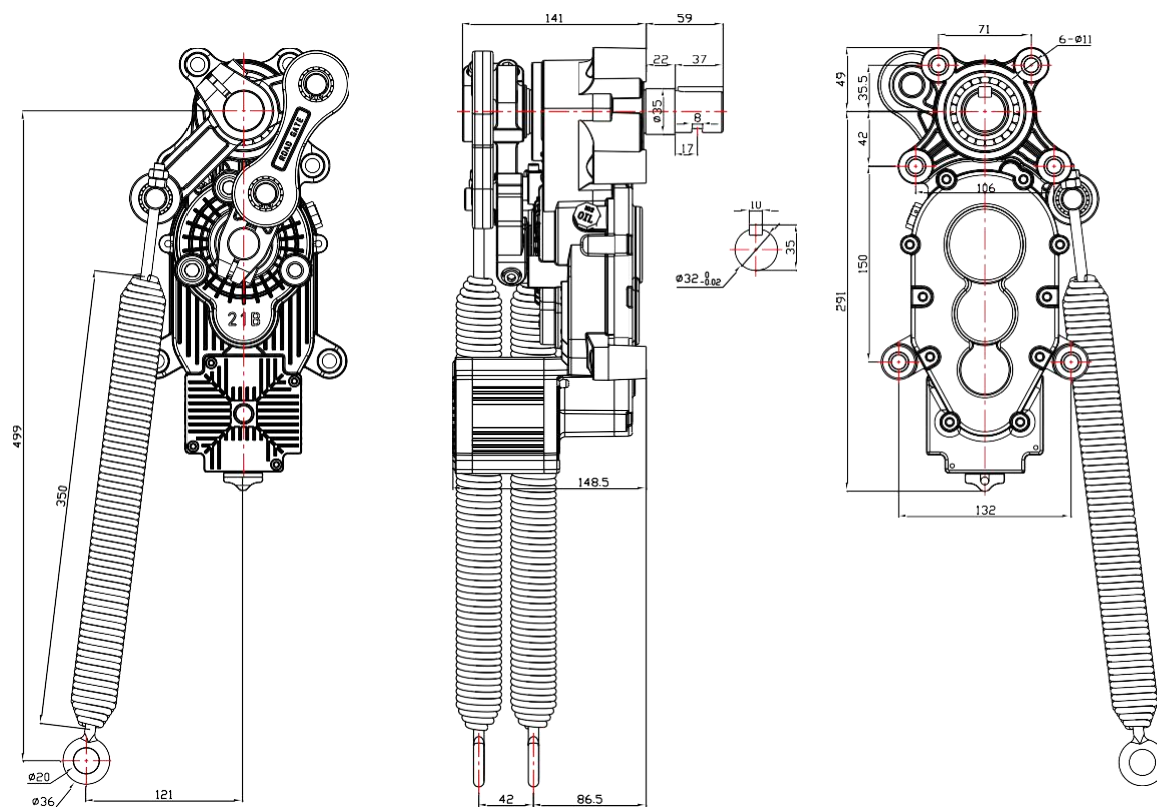
### I. Product Performance Features

- 1) The movement is installed sideways, which is convenient to install and compact.
- 2) The movement body is made of aluminum alloy and manufactured by die-casting process. It has reliable mechanical strength, beautiful appearance, precise size and good heat dissipation.
- 3) The movement adopts gear reduction transmission, which has high transmission efficiency and low power output loss; the gear material is SCM421, carburizing heat treatment process, precision gear grinding, wear resistance, impact resistance, and service life far exceeds the worm gear transmission structure.
- 4) The movement adopts a brushless DC motor with large output torque and small size. The speed can be adjusted arbitrarily through the controller. The deceleration buffer is realized when the rod is dropped and lifted, so that the gate rod is in place smoothly.

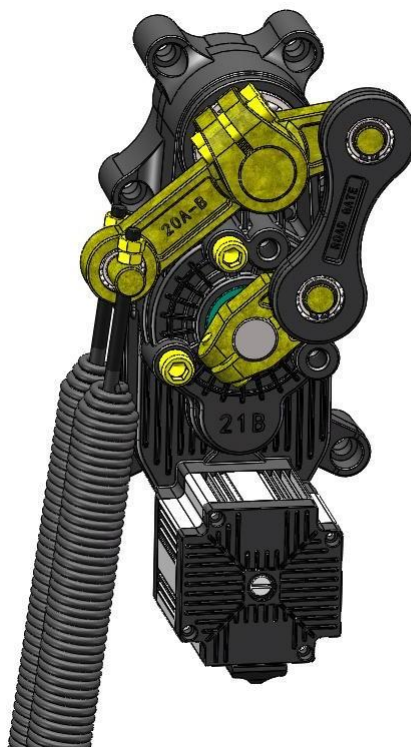
### II. Specifications

Model No.	Output power	Voltage	Rated current	Rated speed	Rated torque	Magnetic pole pair
21B-0.8S	100W-120W	DC24V	5A	1500r/min	0.64N.M	5 pairs of poles
21B-1.5S	100W-120W	DC24V	5A	1500r/min	0.64N.M	5 pairs of poles
21B-3.0S	100W-120W	DC24V	5A	1500r/min	0.64N.M	5 pairs of poles
Model No.	Temperature rise	Insulation resistance	Insulation level	Protection level		Transmission efficiency
21B-0.8S	≤45K	≥100 megohm	F Grade	IP44		0.9
21B-1.5S	≤45K	≥100 megohm	F Grade	IP44		
21B-3.0S	≤45K	≥100 megohm	F Grade	IP44		
Model No.	Output shaft speed	Noise	Spindle output torque	Lifting and lowering time		
21B-0.8S	37.5r/min	≤58dB	32N.M	1.2S-2.5S		
21B-1.5S	20r/min	≤58dB	60N.M	2.0S-4.0S		
21B-3.0S	10r/min	≤58dB	120N.M	3.5S-6.0S		

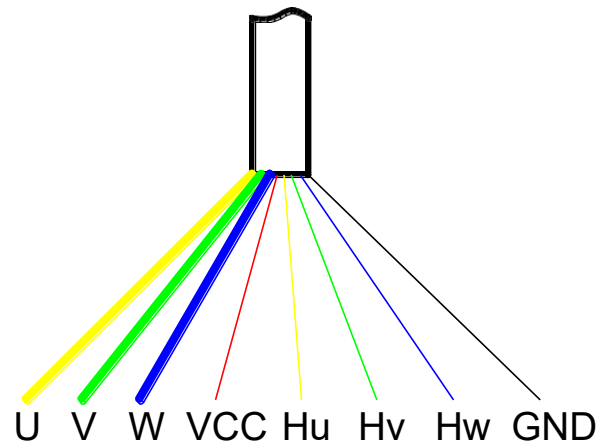
### III. Dimensions



### IV. Movement appearance pictures



## V. Definition of motor lead wires



## VI. Movement and lever selection

Model No.: 21B-0.8S, 21B-1.5S, 21B-3.0S								
Elliptical rod (76*40mm)			Octagonal rod (100*45mm)			Fence pole (100*45mm single layer)		
Rod length	Movement model	Recommended speed	Rod length	Movement model	Recommended speed	Rod length	Movement model	Recommended speed
2.0 m	21B-0.8S	≥1.2S	2.5m	21B-0.8S	≥1.5S	2.5m	21B-1.5S	≥3.0S
2.5 m	21B-0.8S	≥1.2S	3.0m	21B-0.8S	≥2.0S	3.0m	21B-1.5S	≥3.5S
3.0 m	21B-0.8S	≥1.5S	3.5m	21B-1.5S	≥2.5S	3.5m	21B-3.0S	≥4.0S
3.5 m	21B-0.8S	≥1.5S	4.0m	21B-1.5S	≥3.0S	4.0m	21B-3.0S	≥4.5S
4.0 m	21B-0.8S	≥2.0S	4.5m	21B-1.5S	≥3.5S	4.5m	21B-3.0S	≥5.0S
4.5 m	21B-1.5S	≥2.5S	5.0m	21B-3.0S	≥4.0S			
5.0 m	21B-1.5S	≥3.0S	5.5m	21B-3.0S	≥4.5S			
			6.0m	21B-3.0S	≥5.0S			

Note: The above data are for spring-loaded movements. If a springless movement is used, the length of the elliptical rod and octagonal rod should be within 4.5 meters, and fence rods are prohibited.

## **VII. Working environment**

Temperature range: -30°C to +60°C Humidity: within 90% (no condensation) Altitude: below 1000M

## **VIII. Storage environment**

The movement should be stored in a dry and ventilated warehouse. The suitable temperature in the warehouse should be maintained in the range of 5°C ~ 35°C, and the relative humidity should not be higher than 65. It should prevent the intrusion of harmful gases, steam and dust.

## **IX. Operating life**

The working life of the movement is  $\geq 5$  million times within the normal gate rod length and speed range.